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# CORRIGENDA: "STABILIZATION IN $H^{\infty}_{\mathbb{R}}(\mathbb{D})$"

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*Abstract*

In this corrigenda we outline the necessary changes to the paper [**3**] so that the main result in that paper is made correct. The mistake the author made in the previous version was that the condition that $f_1$ being positive on the zeros of $f_2$ was not strong enough to guarantee the existence of the logarithm in $H^{\infty}_{\mathbb{R}}(\mathbb{D})$.

In particular, the main result now is the following theorem: Suppose that $f_1, f_2 \in H^{\infty}_{\mathbb{R}}(\mathbb{D})$, with $\|f_1\|_{\infty}, \|f_2\|_{\infty} \leq 1$, with

$$\inf_{z\in\mathbb{D}} (|f_1(z)| + |f_2(z)|) = \delta > 0.$$

Assume for some $\epsilon > 0$, $f_1$ has the same sign on the set $\{x \in (-1,1) : |f_2(x)| < \epsilon\}$. Then there exists $g_1, g_1^{-1}, g_2 \in H^{\infty}_{\mathbb{R}}(\mathbb{D})$ with $\|g_1\|_{\infty}, \|g_2\|_{\infty}, \|g_1^{-1}\|_{\infty} \leq C(\delta,\epsilon)$ and

$$f_1(z)g_1(z) + f_2(z)g_2(z) = 1 \quad \forall\, z \in \mathbb{D}.$$

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